

20010514.qrp v02_n189.qrl.20010514

Date: Mon, 14 May 2001 19:03:13 EDT

From: qrp-l@Lehigh.EDU

To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>

Subject: QRP-L digest 2189

QRP-L Digest 2189

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- 2) [98174] QRP to the Park
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- 17) [98189] QRPedal
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by "lyon" <sslyon@megalink.net>
- 19) [98191] Bandsread experiments on the SW40+

by "Brockwell, Stephen E. CECOM SEC FSSE ILEX" <brockwse@fssec.army.mil>
20) [98192] Wanted: Suggestions on a first QRP rig
by "Gary Powell" <n4dl@worldnet.att.net>
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by "Karl F. Larsen" <k5di@zianet.com>
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by "Jim" <sunwatt@starband.net>
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by "Kenneth Evans" <w4du@mediaone.net>
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by "Brad Hernlem" <alihernlem@hotmail.com>
28) [98200] Re: Wanted: Suggestions on a first QRP rig
by "Brian Murrey" <bmmurray@amexol.net>
29) [98201] Re: Wanted: Suggestions on a first QRP rig
by "Mike WA8BXN" <hubby2k@hotmail.com>
30) [98202] RE: toroids What type for QRP Balun?
by "Lau, Zack, W1VT" <zlau@arrl.org>
31) [98203] FDIM list
by "Kenneth Evans" <w4du@mediaone.net>
32) [98204] Re: Wanted: Suggestions on a first QRP rig
by Fred - W2XN <w2xn@netzero.net>
33) [98205] Re: Wanted: Suggestions on a first QRP rig
by geoff allsup <gallsup@whoi.edu>
34) [98206] Re: Laura's kids and Chuck's challenge ...
by "laura halliday" <marsgal42@hotmail.com>
35) [98207] (WOT) Doug Adams and Doug Hendricks
by "Bruce Kizerian" <kizerian@ced.utah.edu>
36) [98208] Is Mouser online ordering secure?
by "Robert P. Okas" <vintage@best.com>
37) [98209] FS Bencher Hand Key
by "al dawkins" <alk0frp@home.com>
38) [98210] Re: Is Mouser online ordering secure?
by DONALD DORN <DDORN@CWIS.NET>
39) [98211] Re: Is Mouser online ordering secure?
by Phil Wheeler <w7ox@earthlink.net>
40) [98212] Re: Is Mouser online ordering secure?
by Bruce Muscolino <w6toy@erols.com>
41) [98213] RE: Is Mouser online ordering secure?
by "Ed Tanton" <n4xy@att.net>

Date: Sun, 13 May 2001 17:36:01 -0600 (MDT)
From: "Karl F. Larsen" <k5di@zianet.com>
To: Tony Fishpool <g4wif@btinternet.com>
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [98173] Re: MH101: More cap questions
Message-ID: <Pine.LNX.4.33.0105131732290.1098-100000@cannac.com>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Hi Tony, Thanks a load, I got Pauls paper and it's in my Unix directory /home/karl/components/capacitor/ directory. I have several .pdf files here among which one is from Amidon and covers toroid coil forms. I bet your using linux too Tony, the file "ps2pdf" is on everyone of them and does what the name implies....:-)

On Sun, 13 May 2001, Tony Fishpool wrote:

> Last year, Paul and George Heron kindly gave me permission to turn that
> article into a GQRP data sheet. I've placed it at
> www.btinternet.com/~g4wif/na5n.pdf . It is a bit huge at 1.6 megs, but
> hopefully, it will be worth the download if you haven't seen the article
> before.

>
> Kind regards
> Tony - G4WIF
>

> ----- Original Message -----

> From: "John Wagner" <john@neknetwork.com>

>
>
> > I was lucky enough to remember that a
> > QRP Homebrewer I previously read
> > had an article about capacitors by
> > Paul Harden, NA5N. This is the
> > Winter, 2000 edition of that journal.

>
>
>
>

--

Yours Truly,

- Karl F. Larsen, k5di@arrl.net (505) 524-3303 -

Date: Sun, 13 May 2001 18:55:21 -0500
From: John Ragsdale <jr91901@navix.net>
To: qrp-l@lehigh.edu
Subject: [98174] QRP to the Park
Message-ID: <6f7uftsiv9j8mf67rpr4gmrkg1f0b098rt@4ax.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=ISO-8859-1
Content-Transfer-Encoding: quoted-printable

Charlie, K=D8NG, Bill, KG=D8LD, and Steve, WB=D8QQT, - supported by =
Sarah, KC=D8KIE,
Norm, KA=D8ABA, and John, N=D8NF - operated QRP from Holmes Park, =
Lincoln, Nebraska,
from 9:00 a.m. until 11:30 on Saturday, May 12.

The operation consisted of two 20 and 40 meter stations. One, located =
near the
Park's Observatory, featured a Yaesu FT 301 running five (5) watts to a =
Hustler
mobile antenna with a Hy-Gain commercial coil for 20 meters. The 40 meter
Observatory operating position consisted of an OHR Explorer II =
transceiver
producing one (1) watt coupled to a dipole.

The other station, located near the Park's most northeast playground, was
composed of a Ten-Tec 1340 Transceiver set for two (2) watts and Gusher =
2B
inverted vee antenna for 40 meters. The other operating position at the
playground was a 20 meter MFJ Cub Transceiver with a power output of two =
(2)
watts, a 10-15-20 multiband vertical antenna comprised of one-half of a =
Hy-Gain
TH3 Jr. driven element and a Bunnel Railroad straight key.

Despite a rain forced shutdown and poor operating conditions, the log of =
the
operation (presented below) revealed contacts with six states: AR, MI, =
MO, NE,
OH and OR. Coincidentally, both the Michigan and Ohio stations were also
operating QRP from local parks to check out their stations for field day.

Observatory Station

14:06	N5XM Ft. Smith, AR	40	569
14:21	N5L00 DeQueen, AR	40	229
15:10	K7HZ Corvallis, OR	20	339

15:42 WB=D8LTE Branson, MO 20 569
=20
Playground Station

15:21 WB=D8FNZ Lincoln, NE 40 599
15:44 KU5A Springfield, MO 40 -
16:00 WX3M Nr Detroit, MI 20 -
16:13 W8DEP Nr Toledo, OH 20 -

The group reported the operation, designed as a shakedown for both =
equipment and
set- up/teardown procedures, went smoothly and encourages them to plan =
future
QRP field operations.

John N=D8NF

Date: Sun, 13 May 2001 20:30:58 -0400
From: Duffer <hduff@ica.net>
To: qrp-l@lehigh.edu
Subject: [98175] Need PSA-9 DC molex connector
Message-ID: <3AFF2742.88D8AE5D@ica.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

As the subject line reads, I need the mating Molex connector for a Heath
PSA-9 power supply DC output to plug into my HW-9. If you have one that
you can sell to me or know of a source, please reply.

Tnx de Hugh VA3TO

p.s. Please cc your reply to me direct by e-mail.

Date: Sun, 13 May 2001 17:50:11 -0700
From: "Yong Cho" <yongkch@msn.com>
To: <qrp-l@Lehigh.EDU>
Subject: [98176] Spi-Ro Vertical Sloper antenna
Message-ID: <JPENIBKEKJJBMCALDNFBIEGHCAAA.yongkch@msn.com>
MIME-Version: 1.0
Content-Type: text/plain;

charset="iso-8859-1"

Content-Transfer-Encoding: 7bit

Hi all,

I don't get answer from "antenna" news group so I'm sending to QRPers.
Does anyone have experience with Spi-Ro Trap Verticals Slopers antennas?
They advertised in QST like this ("can be used without radials", "Tuner
usually never required").

1. How would it perform compare with practical dipole?
2. Could someone tell me how it works?

72 de n7zei,
Yong

Date: Sun, 13 May 2001 20:38:45 -0500
From: Nick Kennedy <nkennedy@tcainternet.com>
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [98177] Laura's kids and Chuck's challenge ...
Message-ID: <01C0DBEC.B56A9600.nkennedy@tcainternet.com>
MIME-Version: 1.0
Content-Type: text/plain; charset="us-ascii"
Content-Transfer-Encoding: 7bit

"The result is the
baseband spectrum of the modulation, shifted over to
the frequency of the carrier. Kid's stuff."

Kids must be a lot different up in Canada, eh? Around here, they just
watch TV, play with computers, listen to music and eat me out of house and
home. Haven't caught any of them doing Fourier transforms yet.

But the advice seems sound. Chuck's 20 WPM string of dits isn't hard to
break down into a fundamental and a series of odd harmonics of the
frequency of the keying square wave (8.33 Hz). If I plugged in the values
correctly, the amplitude at $n = 1$ (BW = 16.66 Hz) is 3.9 dB below the
'carrier'. At $n = 3$, (BW = 50) it's -13.5 dB and it continues to decrease.
Since bandwidth is generally taken to be the -3 dB point, I'd linearly
approximate the BW to be about 12 Hz. You can figure it with a string of
dashes at 20 wpm too. Amplitudes drop off a lot faster, so the equivalent
BW is narrower.

Did I get it right? Do I win a Jean-Baptiste Joseph Fourier baseball cap?

72--Nick, WA5BDU

Date: Sun, 13 May 2001 22:49:44 EDT
From: n5ib@juno.com
To: qrp-1@Lehigh.edu
Subject: [98178] Beaumont TX visit de N5IB
Message-ID: <20010513.214828.4639.10.n5ib@juno.com>

I'll likely be in Beaumont this Thursday until for the Southland Conference baseball tournament at Lamar U. while the No. 1 son plays (LHP) for University of Louisiana, Monroe. Will probably bring the K-2 and some sort of wire antenna in hopes of contacting the xyl (WD5CMA) back in Baton Rouge. I'll be staying at the team hotel - the Beaumont Hilton, I think.

Any Beaumont area QRPers/baseball fans lurking about? How about which are the appropriate 2 m repeaters for help in finding my way about?

72
Jim N5IB

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<http://dl.www.juno.com/get/tagj>.

Date: Sun, 13 May 2001 22:03:04 -0500 (CDT)
From: "Adrian Weiss" <aweiss@usd.edu>
To: qrp-1@lehigh.edu
Subject: [98179] The 01'QRP One-Two and PZ1AP on 30m
Message-ID: <Pine.SOL.4.03.10105132154190.21450-100000@sunburst.usd.edu>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Hi gang:

I just have to let everyone in on this "possibly converted" experience.

So PA1AP was calling a working'em oon 10.104 or so, and I called him a couple of times on-n-off without commitment -- I have a QSL from him already. Then in came K0ZK/QRP calling him and PZ1AP came back to him -- both were named "Arnold". At any rate, K0ZK (in NE) setn his exchange and "5w" and PZ1AP came back with "congrats" and then started fiddling and got his power down to 5w. He went from a 57/8 to a 54/55. K0ZK sents "congrats" back to PZ1AP and "72" and they ended the QSO. So I gave a serious call to "PZ1AP/QRP" signing "W0RSP/QRP". He came back and you could tell he was excited. Probably the first time he ever heard "PZ1AP/QRP" coming at him! We did our QSO and I "congrats" him on his QRP -- he didn't "congrats" me -- a good sign he was psychologically adjusting to the reality that QRP is just normal, not something needing "congrats"! Let's hope. Well after we signed, gues who was calling "CQ DX" -- "PZ1AP/QRP". He did a couple of such calls and then QRT'd. Well, just maybe the bug has bitten. I told him it was great to work DX 2-way QRP. Let's hope. Maybe I ought to send him a copy of THE JOY OF QRP while the iron is hot.

I thought that nailing 3B6RF earlier on 30m "made my day" with #149. But hey, this was actually a lot more fun since a QRO'r went QRP and worked two QRP DX stations (from his perspective) -- his first!

72 all and Dayton here I come!

Ade

Date: Mon, 14 May 2001 04:26:38 +0100
From: "Chuck Adams, K7Q0" <k7qo@earthlink.net>
To: qrp-1@Lehigh.EDU
Subject: [98180] [MH101] Toroids and some mathematics [long]
Message-ID: <5.0.2.1.0.20010514042548.00a73ec0@mail.earthlink.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Gang,

Get out your trusty TI-30X Solar Powered (tm) calculator
as you are going to need it.....

Since by now more than 200 individuals have probably received their latest NorCal Toroid Kit (tm) from Doug, KI6DS, and Jim, WA6GER I thought that now might be a good time to talk a little about toroids. Included in the kits were

- 15 Type 43 Beads
- 25 T50-2 Toroids
- 25 T50-6 Toroids
- 25 T50-7 Toroids
- 25 T37-2 Toroids
- 25 T37-6 Toroids
- 25 FT37-43 Toroids
- 25 FT37-61 Toroids

This posting is not an attempt to cover everything there is to know about the little critters but an attempt to cover some highlights and answer some FAQs that yearly appear on QRP-L. And I forgot when Doug first came out with the first toroid kit, but the kid has counted a lot of toroids and bagged them rather nicely. And poor Jim Cates put them in boxes and hauled them off to the USPS. They probably have someone at a window daily looking for him.... :-)

For the T50's: they are

- 0.500 inches outside diameter (measured 0.505")
- 0.300 inches inside diameter (measured 0.297")
- 0.190 inches in height or thickness (0.196" measured)

For the T37's:

- 0.375 inches outside diameter (0.380" measured)
- 0.205 inches inside diameter (0.199" measured)
- 0.128 inches in height (0.143" measured)

The inductance for a wound toroid is given by the formula

$$L = A_L * (N * N / 10,000)$$

where L is in uH (microHenries), A_L is uH per 100 turns, and N is the number of turns for the winding. A_L is given by the manufacturer for the type and size of the toroid.

Since we are going to wind these toroids (note: there is only one r in the word) with wire, let's look at the wire first. I buy my wire at the bigger swapmeets like Tuthill, HamCom, or Pacificon from The Coax Connection (1-708-420-0342) where they usually have

a booth and are selling one quarter pound spools. For example: 400' of #24 cost me \$4.85 and 500' of #28 cost me \$4.05 the last time (and only time) I bought some, so the price may be up a little. And the wire was thermaleze coated, but I still use the trusty #11 Exacto blade to scrape the insulation off. I have found that when I use the solder and the soldering iron to coat the wire using the melting properties of the enamel I use enough solder to build a complete rig. I have enough of all the sizes of wire to last me for a lifetime I'm sure.

Wire sizes are usually given by an AWG (American Wire Gauge) number. And to list just a few and note the wire diameter in mils (1 mil = 1/1,000th of an inch). These numbers do account for the insulating coating.

AWG #	Diameter (mils)	Ohms/1,000'
14	66.7	2.52
16	52.9	4.02
18	42.4	6.39
20	34.0	10.1
22	27.0	16.2
24	21.6	25.7
26	17.2	41.0
28	13.8	65.3
30	11.0	104.0

Please note that the resistance is per 1,000 feet so that only a foot of #14 wire has a resistance of 0.0025 ohms and a foot of #30 wire has a resistance of 0.10 ohms, so the resistance is pretty low for the toroid windings we typically do. The Q factor will be pretty high and we still want to use the largest size wire if we want a high Q value. More on this later.

We need these numbers on the wire later, so print them out and save 'em. I'll put this writeup on the web page later in the MH101 section in .pdf format and a derivation of the windings vs. inductance formula. Paul Harden, NA5N, has the numbers for bare wire only in his famous "Data Book for Homebrewers and QRPers". (Quicksilver Printing, Box 757, Socorro, NM 87801 and for \$20 last pricing that I have on it.) You can also look on page 24.8 of any later model ARRL Handbook (1995-2001), but the enamel coated wire values you have to get from 1/TPI for the diameter and the numbers vary slightly from what I measured above. And probably different wire manufacturers will have a different thickness of the enamel coatings and some variations in the manufacturing process, so mileage will vary.

The question came up recently on QRP-L about the maximum number of turns you can get on a toroid. Page 24.6 of ARRL HB has values for various toroid sizes and for the two sizes we got with the NorCal toroids we need:

AWG #	Max # Turns T-50 core	Max # Turns T-37 core
16	13	7
18	18	10
20	23	14
22	30	19
24	39	25
26	50	33
28	64	42
30	81	54

Remember how many turns we all did on the T50-7 for the NorCal 40a? :-)

From geometry and a little mathematics, if R_i is the inner diameter of the toroid (in inches) and N is the number of turns wanted, then the MAXIMUM wire diameter in inches is

$$d = (2 * \pi * R_i) / (N + \pi)$$

where $\pi = 3.14159$.

Now if you know A_L and L , you can solve for N :

$$N = 100 * \sqrt{L / A_L}$$

You can use this formula to determine which core to use for a desired L and get a reasonable number of turns. Memorize the formula.

For the toroids in the NorCal Toroid Kit (tm):

T50-2 $A_L = 49 \text{ uH}$ (per 100 turns)
 T50-6 $A_L = 40 \text{ uH}$ (per 100 turns)
 T50-7 $A_L = 43 \text{ uH}$ (per 100 turns)
 T37-2 $A_L = 40 \text{ uH}$ (per 100 turns)
 T37-6 $A_L = 30 \text{ uH}$ (per 100 turns)
 FT37-43 $A_L = 420 \text{ mH}$ (per 1,000 turns)
 FT37-61 $A_L = 55.3 \text{ mH}$ (per 1,000 turns)

For the last two, $N = 1,000 * \sqrt{L / A_L}$

There are tables for just about every toroid known to man in the ARRL HB pages 24.5, 24.6, and 24.7. Also included are frequency ranges of operation and temperature stability (-7 core (white) being the best and the reason the NorCal 40a and other rigs used it)

The table in Paul Harden's book is the only one that I can't use as he gave the range of values and not a specific value that you can use in the formula. I have written these numbers in that book (which I use a lot) so that I don't have to look elsewhere. Paul, in the next printing add an extra table to use, please. You are coming out with a new revision?????? :-) ;-)

Going back to the maximum wire size calculation. Let's take T50 with $R_i = 0.300"/2 = 0.150"$ remembering that the dimensions given are for diameter and we want radius, and say we want 50 turns, we get

$$d_{\max} = (2 * \pi * R_i) / (N + \pi)$$

$$d_{\max} = (2 * 3.14 * 0.150") / (50 + 3.14)$$

$$d_{\max} = 0.0177"$$

Looking up guages in our wire table we find #6 with $d = 0.0172"$ will fit the bill and this checks with the ARRL table. I leave it as an exercise to check all the rest of them. So we now have a way, given N, to find the largest size wire we can use. This is important and good stuff.

Now to my favorite stuff. NOTE: the inductance formula only involves the number of turns squared and A_L . It is simple physics at work. But there are some urban legends and let's look at how they come about.

This an experiment that we think about and not actually do. Say you wind a toroid with 20 turns of wire plus some lead lengths (1" on each end). (You'll note that in this posting that this will be the only time in which I did not go metric for everything 'cuz no one has bothered to convert over yet. The liquor industry is the only industry in the USofA to go completely metric.)

The 20 turn (20T) toroid has a total inductance, say L, and a resistance R.

Mentally unwind the wire and think of it as being 20 resistors and 20 inductors of equal value in series and alternating between R and L. The total resistance is that we measured for the inductor and the total L is that for the wound coil. Each of these resistor/inductor combinations corresponds to a single winding on the coil. This is a simple model, so do not try go anywhere else with it.

Also remember that resistors and inductors in series add up for the total neglecting mutual coupling between inductors.....

Now each turn of the coil is separated from the adjacent turns by air and enamel. Know what that means? Yep --- we have a small capacitance between the turns. So add a small C value in parallel between each of the R/L combinations.

We have 19 such caps. And then there is effectively an additional cap between the two leads for the end wires. This is the distributed capacitance for the coil.

It has some basic self resonance frequency due to the LC combo.

Trivial pursuit question for dweebs: how many conductors do you need to have capacitance?

By squeezing the windings closer together we increase the capacitance and we LOWER this resonant frequency. By spreading the turns apart we RAISE the resonant frequency

up to a certain point. Both effects due to the $f = 1/(2\pi\sqrt{LC})$ formula. We are varying C and L is kept constant.

This is why all the instructions in kits and books tell us to leave about 30 degree

spacing on the end leads and distribute the windings evenly over the core. We are trying to minimize the "distributed capacitance" across the coil.

So it is incorrect to say that squeezing the turns together changes the inductance of the coil. It doesn't work that way.

[I have started a summer project to be finished before the fall term starts. I am working all the problems in these three books:

"Electromagnetism - Principles and Applications" by Corson and Lorrain.

"Introduction to Electrodynamics" by David J. Griffiths.

and

"Classical Electrodynamics" by John David Jackson. (third edition)

The last one I'd done in graduate school but when he was using cgs units. He has now published a third edition using MKS or SI units.

This for working out the details of the distributed capacitance exactly. Also for some antenna theory work in progress.]

Now to actually doing some checks as a formula doesn't do us much good unless we can use it and it works.

Let's take L1 in the SW30+. It is a T50-6 core with 29T of #24 wire. I am now looking at the old copy of the manual (I can't find the new one on the floor right now :-)) and it doesn't tell us the length of wire to use. So let me show you how to determine the wire length needed as you'll be building a lot of stuff Manhattan Style without having a manual to give you all the help you need. The inner diameter is 0.300" and the outer is 0.500", so 1/2 the

circumference

for one turn is $(0.5" - 0.3") = 0.2"$ and the other 1/2 is $2 \times (0.19") = 0.38"$, thus the circumference of the toroid cross section for a winding is $0.58"$ per turn.

Now this assumes that the wire is every where in contact with the core and this just isn't the case. There will always be some space and it is not critical as long as you aren't too sloppy in doing windings.

I treat toroids as fragile objects and they are. I keep reading year after year about some one breaking one of these critters. I pull no more than about 2 pounds when doing windings. I haven't used a strain gauge to measure it, but I want the wire to be somewhat snug but I don't want to risk breaking the toroid or stretching

the wire. I guess it is no different than learning to sew and learning just how much

thread will take before it breaks. Just don't try to manhandle pulling the wire through. I've learned to be careful on the larger number of windings to not pull the wire through the toroid and create a kink in the wire, etc. Practice makes perfect. Kathy Witzke at the old OHR probably has the record for the most number of toroids wound of anyone that I know as she did them for all the kits when OHR at one time prewound the toroids. This back when people complained about doing toroids. They are not that difficult and they are far better than other inductors.

OK, back on track. $29T$ gives us $29 \times 0.58" = 16.9"$ and add 2" for the leads and another 2" for a fudge factor, thus 21" by rounding. OK. Wait a minute and let me go wind a critter

and I'll be right back. This is an experiment that I always try to do when I write something. I go do it according to what I just wrote. Double check everything this way.

I'm back and the length came out about right and it is better to have just a little

too much than too little. Been there. Done that.

OK, we'll calculate what the inductance value is for this critter as NN1G didn't say ---

$$L = A_L \times (N \times N / 10,000)$$

$$L = 40 \text{ uH} \times (29 \times 29 / 10,000)$$

$$L = 3.364 \text{ uH}$$

as the calculated value. Let me go measure this toroid on the AADE LC meter.

And the little critter measures 3.668 uH and I do expect the value to be a little higher due to the distributed capacitance and the way it is measured. But

there are variations in the makeup of the core itself, so do expect results to vary through no error on your part. And if you have a LC meter you can play with the measured values you get as a function of winding spacing.....

Some people get all up tight about coating toroids with Q-Dope or clear finger nail polish to hold the windings in place. Also pre-thermal stress the core by dipping in boiling water for a minute or two and the list goes on and on and on. Sorry to disappoint you but I don't do any of that stuff. I just plug and play at this point and I haven't had any problems. Not ever.

Now for those of you going to build the SW30+ for the MH101 project. Take the parts list and work out the inductance values for all the coils and the length of wire needed to wind it so that when you get to that point you will be ahead of the game.

Now I spent a lot of time working this out and posting it. I just hope that at least one of you has learned something new from this exercise. It will make the effort worth the time. I enjoy this dweeb stuff and ham radio is a technical hobby if you get down and work with the electronics.

FYI es enjoy,

P.S. I left out a ton of stuff, but let's save some stuff for next year. :-)

OH. The beads. I use those in the base leads of PA amps to prevent UHF/VHF oscillations in final sections. You'll see them used aperiodically in rig designs. I've got beads in the parts bin that I have no earthly idea where I got them or their characteristics. Some day maybe I'll sit down and go through them but not until I run out of projects..... :-)

Chuck Adams, K7QO CP-60
Prescott, AZ k7qo@earthlink.net <http://www.qsl.net/k7qo>

TMPS-2001 Jan 12th -> April 15th, 2001 States = 49 DXCC = 15

States Needed AK DXCC --- K XE VE KH6 V73 HI3 FM5 OH3 C6 ZL1 C08 ZS6 EA8 EA7
PJ ZL2

Moving to Arizona? --- Bring your own water.

Date: Sun, 13 May 2001 23:49:10 -0600
From: "Adrian Weiss" <aweiss@usd.edu>

To: qrp-1@Lehigh.EDU
Subject: [98181] FW: 3B6RF QRT early
Message-ID: <GDB6PB01.Q7Z@mail.usd.edu>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Ed:

Tnx for the 3B6RF QRT info -- sent chills up my spine because I just worked him 0015 May 14 on 30m. Another one almost got away!

72, Ade

Date: Mon, 14 May 2001 01:20:13 -0400
From: Dan Poorman <dan@voyager.net>
To: qrp-1@Lehigh.EDU
Subject: [98182] Re: printing help files
Message-ID: <faquft4ud1rhvjmt38atf2lo6mn05dfnto@4ax.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: quoted-printable

Hi Dan,

A utility I've used effectively to convert HELP files to Rich Text =46ormat (RTF) is called

hlp2rtf.exe

See

<http://www.herdsoft.com>

for info. You use the program to 'process' a standard .hlp or .hp file and convert it to RTF format which can be edited/viewed/printed with Windows Write or Microsoft Word (among many others). The neat thing about it is it automatically generates both a table of contents and an index WITH PAGE NUMBERS!

I'm not subscribed to QRP-L and therefore can't post this. Feel free to echo my message there if you think it is of value.

73,

Bob Helms, AF5Z
af5z@inetport.com

=3D-=3D-=3D-=3D-=3D-=3D-=3D-=3D

I received this email from Bob thought it worth passing along to the list. =20

Also downloaded and ran the MixW help file through the converter and all I can say is WOW!!

The trial version won't do all the keywords the registered version will do, but it did generate a nice index and a table of contents in .rtf format easily read and edited in word. Also has all the photos/charts/screen captures etc.

The one downside I see so far is the \$40 registration fee but considering how well it works, I guess that isn't too bad. Also since many programs now don't come with manuals --- only help files, this program will earn its keep.

Oh, yes, another downside, the MixW help file turns into a 200 page manual.

I did find another help file printing program that is \$28 but doesn't have the index and table of contents features.

And, yes, I'm aware of manually printing out help files --- but for large files, it's really not practical.

Thanks to all who responded.

Dan
WB8QKR
dan@voyager.net

Date: Mon, 14 May 2001 07:48:21 -0400
From: "Lofstead, Jerry" <Jerry.Lofstead@itb.mckhboc.com>
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [98183] RE: printing help files
Message-ID: <078F21595FA7D411B87B00805FA728E64A474F@atlexc02ntms.hboc.com>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"

Another site is http://www.vobis.de/bbs/firmen/pconline/win3x/index_ch.htm
and do a page search for hlp2rtf.exe. it's 304K in size this is the one I was looking around for ...

Jerry
W3CDE

-----Original Message-----

From: Dan Poorman [mailto:dan@voyager.net]

Sent: Sunday, May 13, 2001 10:20 PM

To: Low Power Amateur Radio Discussion

Subject: Re: printing help files

Hi Dan,

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hlp2rtf.exe

See

<http://www.herdsoft.com>

for info. You use the program to 'process' a standard .hlp or .hp file and convert it to RTF format which can be edited/viewed/printed with Windows Write or Microsoft Word (among many others). The neat thing about it is it automatically generates both a table of contents and an index WITH PAGE NUMBERS!

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73,

Bob Helms, AF5Z

af5z@inetport.com

=====

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doesn't have the index and table of contents features.

And, yes, I'm aware of manually printing out help files --- but for large files, it's really not practical.

Thanks to all who responded.

Dan
WB8QKR
dan@voyager.net

Date: Mon, 14 May 2001 08:59:26 -0400
From: "Lau, Zack, W1VT" <zlau@arrl.org>
To: "'qrp-l@Lehigh.EDU'" <qrp-l@Lehigh.EDU>
Subject: [98184] Re: Need PSA-9 DC molex connector
Message-ID: <125490A005E3D3118C9C00805FC743CC016B9E45@KAHLESS>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"

Radio Shack sells this connector.

I rotated the connector on my HW-9 180 degrees, so the
"pointy" end is positive., like the rest of my ham gear.--Zack W1VT

Date: Mon, 14 May 2001 09:06:51 -0400
From: "Wilford D. Lindsey" <70511.3041@compuserve.com>
To: "INTERNET:qrp@netins.net" <qrp@netins.net>
Cc: ".QRP-L Discussion Group" <QRP-L@Lehigh.edu>, ")W.D.(Doc)Lindsey/K0EVZ"
<70511.3041@compuserve.com>
Subject: [98185] QRPedal
Message-ID: <200105140907_MC2-D0DE-F304@compuserve.com>
MIME-Version: 1.0
Content-Transfer-Encoding: quoted-printable
Content-Type: text/plain;
charset=ISO-8859-1
Content-Disposition: inline

Dave:

I listened for him, but never heard a peep. Hope I might bag them before=
they reach Dayton :-).

72,
--Doc/K0EVZ

Date: Mon, 14 May 2001 09:05:46 -0400
From: "Lau, Zack, W1VT" <zlau@arrl.org>
To: "'qrp-1@Lehigh.EDU'" <qrp-1@Lehigh.EDU>
Subject: [98186] RE: toroids What type for QRP Balun?
Message-ID: <125490A005E3D3118C9C00805FC743CC016B9E46@KAHLESS>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"

Any recommendations on a broadband design that will effectively decouple a low impedance feedline (floating quarter wave or grounded half wavelength) from a high impedance feedpoint antenna?
Computer modeling seems to indicate unreasonable losses with realistic balun models.
--Zack W1VT

Date: Mon, 14 May 2001 09:23:48 -0400
From: "Lofstead, Jerry" <Jerry.Lofstead@itb.mckhboc.com>
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [98187] RE: toroids What type for QRP Balun?
Message-ID: <078F21595FA7D411B87B00805FA728E64A4752@atlexc02ntms.hboc.com>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"

Zack,

Easy! Do not laugh but it is a very simple problem to solve. at the very end of the coax, take a 1 liter soda bottle. Wind 10 turns of the coax around the bottle in solenoid fashion (turns not overlapping) and secure. Adjust the length of the line on the antenna side of the soda bottle for resonance and you are ready to fly! If you got thirsty doing this because it is hot out, have a drink of the soda 8-) In expensive and a easy to do solution, low cost too.

Jerry
W3CDE

-----Original Message-----
From: Lau, Zack, W1VT [mailto:zlau@arrl.org]

Sent: Monday, May 14, 2001 6:06 AM
To: Low Power Amateur Radio Discussion
Subject: RE: toroids What type for QRP Balun?

Any recommendations on a broadband design that will effectively decouple a low impedance feedline (floating quarter wave or grounded half wavelength) from a high impedance feedpoint antenna?
Computer modeling seems to indicate unreasonable losses with realistic balun models.
--Zack W1VT

Date: Mon, 14 May 2001 09:49:47 -0400
From: Tim O'Rourke <TO'Rourke@KaiserFT.com>
To: "'qrp-l@Lehigh.EDU'" <qrp-l@Lehigh.EDU>
Subject: [98188] 3B6RF QRP
Message-ID: <910D8E9955E3D411B3AE00A0C9319CB80C6217@MAIL>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"

I was fortunate and worked them last nite during the 20 meter pileup. K2 10 watts to a triband at 35 feet. Add another rare one with 10 watts or less. I am now over 200 DX countries with K2 on SSB, most with 5 watts. I did some experiments to find why the K2 seemed to out perform my other QRP SSB rigs so consistently. The audio compression even at lowest setting and ALC in the K2 work to maintain the average output close to the maximum power selected. None of the other rigs tested even came close {Ft-817, PC-500, QRP+}. The K2 has gotten thru many a pileup running only 5 watts, working split is easy and the terrific receiver helps also. Thanks again Eric and Wayne.
.73 Tim O'Rourke KG4CHX

Date: Mon, 14 May 2001 13:58:55 +0100
From: "Kenneth Evans" <w4du@mediaone.net>
To: "QRP-l Discussion" <qrp-l@Lehigh.EDU>
Subject: [98189] QRPedal
Message-ID: <000f01c0dc75\$a5bd39e0\$6501a8c0@atl.mediaone.net>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

VE3ELA on 21060 calling CQ now ar 1400Z

72/3,

Ken W4DU

QRP ARCI #696, GQRP, NOGA, NORCAL, ARRL-Life

Date: Mon, 14 May 2001 10:03:50 -0400
From: "lyon" <sslyon@megalink.net>
To: "Low Power Amateur Radio Discussion" <qrp-l@lehigh.edu>
Subject: [98190] Re: QRPedal
Message-ID: <001801c0dc7e\$b42cd180\$5d8798ce@megalink.net>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Tried Sunday to catch them several times on 40, 20, 15... heard some neat DX, but no QRPedals. Is there a schedule of "activity times"? -or is it catch-as-catch-can? I'll try again today, (Monday) while working on the Major Cannon. (below)

Devoted the rest of the day to clearing some DENSE Maine woods to access a pair of 70+' trees, one White Pine, the other Hemlock. Got to the top of the 2nd one by sunset and the view is absolutely spectacular! They're 180' apart, (I smell exotic antlers!) and 250' up the hill from our home, so HB Ladderline is in order. More later

72

"Seab" Lyon - AA1MY
Bethel, ME 04217 USA
FN44nj

SS LYON
99 Sparrowhawk Mtn Rd
Bethel, Me, 04217
(sslyon@megalink.net)

Date: Mon, 14 May 2001 09:28:28 -0500
From: "Brockwell, Stephen E. CECOM SEC FSSE ILEX" <brockwse@fssec.army.mil>
To: "'qrp-l@lehigh.edu'" <qrp-l@lehigh.edu>

Subject: [98191] Bandspread experiments on the SW40+
Message-ID: <F05408425630D4118DEE0000F840B5D485CA96@alrsrcv02.fssec.army.mil>
MIME-Version: 1.0
Content-Type: text/plain

While building the SW40+ I wanted to cover more bandspread so I changed the single turn tuning pot to a 10-turn model (now I know what they are for...) changed C8 and C7 and adjusted the coils on L1 toroid until the the final bandspread was 7017 khz to 7148 khz. I originally had the SW40 set up as per Dave Benson's instructions for setting the band value and used Glen VE3DNL's advice on varying the C7/C8 capacitor combinations. The values that I used and results are below: (capacitors are in pF)

C8	C7	LOW MHZ	HIGH MHZ	REMARKS
82	22	7110	7147	37 KHZ
82	82	7023	7059	36 KHZ
100	none	7130	7180	50 KHZ
200	none	7085	7177	92 KHZ
200	22	7055	7145	90 khz
247	22	7038	7145	107 khz
300	22	7022	7141	119 khz
300	22	7032	7152	adjust turns L1 120 khz
300	22	7032	7151	adjust turns L1 121 khz
300	none	7062	7186	124 khz
300	47	6995	7115	120 khz
300	33	7016	7136	120 khz
347	33	7003	7135	132 khz
347	33	7017	7148	131 khz

The frequencies are not exact because I was just using a receiver. Math may be a little off because I'm a little off. Next is to get the Freq Mite from Small Wonder Labs for the rig. I haven't settled on the bandspread that I really want but kind of got carried away and had fun experimenting. Do not have any kind of figures or ideas on the stability of this type of modification. (Your mileage may vary)

Steve Brockwell KC5TTY
Elgin, OK

Date: Mon, 14 May 2001 10:59:05 -0400
From: "Gary Powell" <n4dl@worldnet.att.net>
To: <qrp-l@Lehigh.EDU>
Cc: "Bob Patten" <n4bp@bc.seflin.org>, "Fred W2XN" <w2xn@arrl.net>, "Jack K4BYF"

<K4BYF@aol.com>, "Merceret-1, Frank" <Francis.Merceret-1@ksc.nasa.gov>,
"Paul Womble" <pwomble1@tampabay.rr.com>
Subject: [98192] Wanted: Suggestions on a first QRP rig
Message-ID: <000701c0dc86\$7352aba0\$a5184e0c@garys>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

I've been a ham for 19 years and have recently gotten interested in qrp. I want to pick up a relatively inexpensive used rig (under \$200) that I can use camping and for other remote operations.

What do you feel would be the best band for a single band unit? The majority of my op time will be afternoons and early evenings; let's say from noon to 8pm. Should I pick 20, 30 or 40 meters?

What are some of the reliable rigs/manufacturers? MFJ, Tentec, Heathkit... in this price range?

Are there any multiband rigs that I could consider for this price?

Thanks in advance for your comments.

Gary, N4DL
Lakeland, FL

Date: Mon, 14 May 2001 09:24:12 -0600 (MDT)
From: "Karl F. Larsen" <k5di@zianet.com>
To: <qrp-l@lehigh.edu>
Subject: [98193] Next Month
Message-ID: <Pine.LNX.4.33.0105140923130.1599-100000@cannac.com>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

At 65 I'm not as strong as I was 25 years ago, but I'm planning a backpack into the Gila Wilderness of New Mexico. There are deer and elk chased by lions and bears, and Coyotes that eat anything. They all fear man and leave you alone. This is because hunting is allowed. In the wilderness when a tree dies it falls down. Forest fires cover 98% of the area every 8 years on the average.

The first part will begin with an RV trip to the Willow Creek Forest

Camp in the Gila National Forest which has no electricity, water, sewer or telephone service. I park my trailer at the trail-head of Trail 151 which is 50 miles long. I have 16 gallons of propane and a 75 watt solar panel. I get water from Little Turkey Creek, 12 feet away. I camp there for about 2 weeks. Then the propane gets low. Still plenty of water and electricity. To buy more expensive propane, it's a 100 mile round trip...

I will end the trip after the Field Day Contest in June. About when the propane runs out. For about 2 weeks I will have a vacation from city life. After about a week of getting used to 8,000 feet elevation I will load my backpack with mush and rice and powdered milk and canned meat and beef jerky. It comes with a tent and air mattress and sleeping bag. Add food and radio gear and my new 4.25 pound battery pack, I have a 40 meter dipole made of hookup wire #26, fed with rg 186 coax. The 1/4" size coax.

I will work 7.29 MHz lsb at 4 PM MDT every day. There is a group of NM hams on then. After dinner I plan to be on 40 and 15 meters cw near the QRP frequencies. That will be around 7-8 PM MDT. More later when all is ready and the time is near.

Anyone wanting to sample this primitive camping site is welcome to come along. Since no service equals no fee it's cheap living. No stores or snack machines. If you forget anything, another camper can and will help.

--

Yours Truly,

- Karl F. Larsen, k5di@arrl.net (505) 524-3303 -

Date: Mon, 14 May 2001 15:38:57
From: "laura halliday" <marsgal42@hotmail.com>
To: qrp-l@lehigh.edu
Subject: [98194] SPRAT CD arrived
Message-ID: <F2589kGR6gncv8aSJlw000064df@hotmail.com>
Mime-Version: 1.0
Content-Type: text/plain; format=flowed

My SPRAT CD arrived, courtesy those nice folks at Funk Amateur. It's complete, it's fully searchable, and it looks good. Browsing the contents will keep me out of trouble for quite some time...

Well done!

Laura Halliday VE7LDH "Que les nuages soient notre
Grid: CN89mg pied a terre..."
ICBM: 49 15.042 N 122 59.053 W - Hospital/Shafte

Get Your Private, Free E-mail from MSN Hotmail at <http://www.hotmail.com>.

Date: Mon, 14 May 2001 08:41:32 -0700 (PDT)
From: Stan Yarema <bg783@scn.org>
To: "Lau, Zack, W1VT" <zlau@arrl.org>
Cc: Low Power Amateur Radio Discussion <qrp-l@lehigh.edu>
Subject: [98195] RE: toroids What type for QRP Balun?
Message-ID: <Pine.SUN.3.96.1010514082903.540A-100000@scn>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

I tried using the choke coil method Jerry suggested for isolating the end of a halfwave. It takes a lot of turns to get enough inductance, about 3X the number you'd use at the feedpoint of a center-fed dipole. This is a lot of coax. So, now I match with a tapped LC resonant circuit at the end of the half-wave antenna. It takes up less room and I can adjust it for 1:1 at the antenna. One end of the parallel LC ckt is connected to the coax shield the other to the antenna. The center of the coax is tapped down the coil (about 1/5 above ground) for 50 ohm match. I don't find I need any additional ground connection, but use a ground rod for safety.

This is not broadbanded of course, but you could build a small QRP version. (the antenna is for 80 meters)

72 Stan, K7SY

Date: Mon, 14 May 2001 16:15:22 -0000
From: "Tom Dufresne" <tdufres@hotmail.com>
To: n4dl@worldnet.att.net, qrp-l@Lehigh.EDU
Subject: [98196] Re: Wanted: Suggestions on a first QRP rig
Message-ID: <F27dIXHbQbilavMw0I0000a0b0@hotmail.com>
Mime-Version: 1.0
Content-Type: text/plain; format=flowed

I am no expert, but based on what I have experienced, 20-40 meters would be good bands for a first-time QRP rig. There are several you could review. I

like the K1 by Elecraft, looks like a real neat rig, but I doubt if you would get ANYONE to sell it to ya for under 200 bucks. What about a nice Heathkit HW-8? 4 bands, you could pick one up for probably 150 bucks including the power supply; hook 'er up to a nice St Louis vertical, and you're good to go. Whole thing stows in a backpack or briefcase. BTW, this is the way I'm doing it. I'm not a camper though, (shudder) my idea of "roughing it" is B&W TV instead of color in the RV..

Tom

Get your FREE download of MSN Explorer at <http://explorer.msn.com>

Date: Mon, 14 May 2001 11:18:51 -0500
From: "Jim" <sunwatt@starband.net>
To: <qrp@yahoogroups.com>
Cc: "QRP-L" <qrp-L@Lehigh.edu>
Subject: [98197] Re: [qrp] # 46 WP2Z
Message-ID: <003101c0dc91\$983bd300\$9a354794@computer>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

An eQSL from KH0/JA1XGI arrived, for a QSO on 15M cw back in June 2000. That's Mariana island, and my power was 500mW.

I badly need to do a recount on my mW DXCC count but this may well be #73 or 74 confirmed.

Really looking forward to the CQWW CW DX contest on 26 27 May !!!

Keep up the good work George.

Jim KJ5TF

----- Original Message -----
From: "George Osier" <gosier@twcnny.rr.com>
To: <qrp@yahoogroups.com>
Sent: Monday, May 14, 2001 10:30 AM
Subject: [qrp] # 46 WP2Z

> Hello All !!!!
>
> Got # 46 in the mail on Sat. !!!
>

> WP2Z , 500 mw , 10 meters , CW
>
> More to follow.....
>
> 73s
>
> George , N2JNZ/QRPP
>
>
> To unsubscribe from this group, send an email to:
> qrpp-unsubscribe@egroups.com
>
>
>
> Your use of Yahoo! Groups is subject to <http://docs.yahoo.com/info/terms/>
>
>

Date: Mon, 14 May 2001 16:39:49 +0100
From: "Kenneth Evans" <w4du@mediaone.net>
To: "QRP-l Discussion" <qrpp-l@Lehigh.EDU>
Subject: [98198] FDIM 2001 Info
Message-ID: <008001c0dc8c\$20513920\$6501a8c0@atl.mediaone.net>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Here is an overview of the FDIM 2001 schedule

Wednesday - Starting at 6PM, you can pick up your nametag* and copy of the Proceedings at the Miambsburg/Centerville rooms at the Ramada. Walk-ins are welcome as well. If possible, do this on Wednesday, as it will reduce the rush on Thursday morning.

Thursday - registration for the FDIM Seminar (and Banquet) outside the Ballroom starting at 7:30 AM. Seminar from 8:00 AM to 5:00 PM. Author's Social in the Miambsburg Centerville Rooms starting at 8:00 PM

Friday - Vendor and Club night in the Ballroom. Setup for clubs and vendors starting at 7:00PM, doors open at 8:00 PM. If you have an entry for any of the contest, please drop it off at the Miambsburg/Centerville Rooms between 7:00 PM and 7:30 PM. Judging will be conducted from 8:00 PM until 9:00 PM. Please pick up your entries by 9:30 PM. Winners will be announced at the Saturday night banquet.

Saturday - Banquet starting at 7:00 PM in the Ballroom - walk-ins welcome while seating lasts. . The Miambsburg/Centerville rooms will also be open at 7:00 PM for the radio show (those not at the banquet are welcome) If you have items for the radio show you can set them up at this time. Also, we ask that people who entered one of the contest to bring your entries back to Miambsburg/Centerville for all to enjoy. (QRP ARCI will have people in the rooms to secure your items if you are at the banquet).

Remember the shirt pocket radios. Bring your Pixies, SMK-1s, SST and of course homebrew items for the world's largest collection of shirt pocket radios. Definition - it must be a functioning radio that fits in your shirt pocket. (No commercial entries please!)

72/3,
Ken W4DU
QRP ARCI #696, GQRP, NOGA, NORCAL, ARRL-Life

Date: Mon, 14 May 2001 16:48:30
From: "Brad Hernlem" <alihernlem@hotmail.com>
To: qrp-l@lehigh.edu
Subject: [98199] Re: MH101: More cap questions
Message-ID: <F363WYIgoFT3kMUVfNI00005cc3@hotmail.com>
Mime-Version: 1.0
Content-Type: text/plain; format=flowed

On the subject of COG caps, what are your general opinions on SMD caps? For some reason it seems that the SMD caps are easier to find in COG specs and I have taken to liking to work with them.

The one drawback of those itty bitty parts is that there is not much space for indicating their value let alone their tempco (so hopefully you know beforehand). BTW, there is a handy guide to SMD codes at:

<http://www.marsport.demon.co.uk/smd/mainframe.htm>

Most SMD caps that I have seen have no markings but a few of them do and this web site gives a table for deciphering their meaning.

Brad

Get your FREE download of MSN Explorer at <http://explorer.msn.com>

Date: Mon, 14 May 2001 13:08:34 -0500
From: "Brian Murrey" <bmmurrey@amexol.net>
To: <n4dl@worldnet.att.net>, "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [98200] Re: Wanted: Suggestions on a first QRP rig
Message-ID: <000d01c0dca0\$e58bdb00\$94372bd1@iquest.net>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Based on those hours of operation, I'd go with a K1 that has 15m and 40m for the installed bands.

Maybe 20m and 40M....

72

----- Original Message -----

From: "Gary Powell" <n4dl@worldnet.att.net>
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Sent: Monday, May 14, 2001 9:59 AM
Subject: Wanted: Suggestions on a first QRP rig

> I've been a ham for 19 years and have recently gotten interested in qrp.
I
> want to pick up a relatively inexpensive used rig (under \$200) that I can
> use camping and for other remote operations.
>
> What do you feel would be the best band for a single band unit? The
> majority of my op time will be afternoons and early evenings; let's say
from
> noon to 8pm. Should I pick 20, 30 or 40 meters?
>
> What are some of the reliable rigs/manufacturers? MFJ, Tentec,
Heathkit...
> in this price range?
>
> Are there any multiband rigs that I could consider for this price?
>
> Thanks in advance for your comments.
>
> Gary, N4DL
> Lakeland, FL
>
>

Date: Mon, 14 May 2001 19:09:23
From: "Mike WA8BXN" <hubby2k@hotmail.com>
To: n4dl@worldnet.att.net, qrp-1@Lehigh.EDU
Subject: [98201] Re: Wanted: Suggestions on a first QRP rig
Message-ID: <F90jidKXVxAVITjRoxz00005f60@hotmail.com>
Mime-Version: 1.0
Content-Type: text/plain; format=flowed

I would suggest a K-1 with 20 and 40 meters. It is a little over your \$200 price range but has many advantages for camping. It has a built in keyer and there is an accurate digital frequency for example. Upgradability is another factor. You can choose different band combinations in the future if you want to, and you can also add the built in automatic tuner option. The rig is compact and solidly cased.

73 - Mike WA8BXN

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Date: Mon, 14 May 2001 15:05:55 -0400
From: "Lau, Zack, W1VT" <zlau@arrl.org>
To: "'qrp-1@Lehigh.EDU'" <qrp-1@Lehigh.EDU>
Subject: [98202] RE: toroids What type for QRP Balun?
Message-ID: <125490A005E3D3118C9C00805FC743CC016B9E4B@KAHLESS>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"

Hi Stan,

I used a simple L network on 20M with a half wavelength wire to prove you could win the QRP ARCI Spring QSO Party from a 2nd floor apartment with simple antennas.

In Hawaii, I worked lots of DX with a 33 ft end fed vertical, including FR7CG/T on SSB (he ran 100W to dipole)--Zack W1VT

Date: Mon, 14 May 2001 19:16:22 +0100

Just made the final update to the FDIM list at <http://www.qrparci.org/fdim2001.htm> . If you're not on it, I have not received your registration as of today. Your may register at the door.

Date: Mon, 14 May 2001 16:00:43 -0400
From: Fred - W2XN <w2xn@netzero.net>
To: Gary Powell <n4dl@worldnet.att.net>
Cc: qrp-1@Lehigh.EDU, Bob Patten <n4bp@bc.seflin.org>, Fred W2XN <w2xn@arrl.net>, Jack K4BYF <K4BYF@aol.com>,
"Merceret-1, Frank" <Francis.Merceret-1@ksc.nasa.gov>, Paul Womble
<pwomble1@tampabay.rr.com>
Subject: [98204] Re: Wanted: Suggestions on a first QRP rig
Message-ID: <3B00396B.14E1724B@netzero.net>
MIME-Version: 1.0
Content-Type: text/html; charset=us-ascii
Content-Transfer-Encoding: 7bit

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<!doctype html public "-//w3c//dtd html 4.0 transitional//en">
<html>
Gary,
<p>It's quite a dilemma, isn't it? I think if you ask 20 different people, you are going to get 20 different answers but let me give you my 2 cents. I will tell you from my experience.
<p>I recently got into QRP, about 2-1/2 years ago. I didn't know what rig to get or what bands to work either. So I went with 40 meters for the first rig because I wanted to do the QRP FoxHunts in the evenings during the winter season and they are done on 40 M. Then I got so that I wanted to work QRP during the day and found 40 M was DEAD during the day!!! . So I got a 20 M QRP rig for daytime.
<p>Most of the QRP activity is on 40 meters around 7040, but that's no good during the day. So I would recommend for your quoted time ("op
```


time will be afternoons and early evenings; let's say from noon to 8pm.")
a 20 meter rig. If you were going to work the evenings only, I would
recommend 40M.

<p>The type of rig you want would be a kit (there are ready built
models by manufacturers also, like MFJ). But there are rigs already
built from kits for sale out on the web reflectors also that someone has
built and now wants to sell. You can join in the QRP email reflector
that Paul, Jack and I are in called "QRP-L" and keep an eye out for a
"sale".

You can also post a "request to buy" note and you may get something, but
be sure you specify what rig you want.

<p>Oak Hills Research makes a good rig, both mono- and multi-band.
I have the OHR-100A (brought it to TTF at KSC) for 40 M and it is capable
of 5 watts. Small Wonders Labs also makes excellent equipment
and I have one of their digital 20 M rigs called the DSW-20 (brought it
to TTF also) - but this rig is no longer available. The first issue
of the DSW- series was 2-1/2 watts, the second issue, which what mine is,
is only about 1 watt. Another good rig is from Norcal QRP Club, the
NC-20 or better yet the "Red Hot 20" which is an improved model.
Again, these are kits, but there are units available out there that someone
has already built. Some people just like to buy the kit, build it
and sell it. They LIKE to build!!!

<p>The most desirable rigs out there now are the Elecraft K-1 (lesser expensive
but still \$269 approx, in kit form without options) and the K-2 (more expensive
around \$569 ---in kit form, without options). Ready built ones by
someone else will go for quite a bit more in cost.

<p>I haven't heard too many MFJ or Ten Tec QRP rigs out there, and those
that I have heard don't sound that good. It would not be a choice
for me, but you may find a good one somewhere. These too are kits
but are available by someone who has already built it. MFJ has the
"MFJ-9020, MFJ-9030, MFJ-9040 series ready built for under \$200 but
not sure of the price. And the few that I have heard sounded OK.

<p>If you are really going to get into QRP, you will probably buy another
QRP rig later for another band, so why not go for the K-1 now ???
It's a dual bander and well worth the money. Every K-1 or K-2 I have
heard on the air has had excellent signals. You could get both 20
M and 40 M right away and be happy.

<p>I have a friend over in Tampa who is really into QRP and rigs and I
sent him a request for his advice to help you. As soon as he responds
I will forward his answers.

<p>Good Luck, and let me know what your decision becomes.

<p>Fred w2xn

<hr SIZE=3 WIDTH="100%">

<p>Gary Powell wrote:

<blockquote TYPE=CITE>I've been a ham for 19 years and have recently gotten
interested in qrp. I

want to pick up a relatively inexpensive used rig (under \$200) that

modules at \$35 each, and a digital display/keyer/etc module also. Very expandable as your budget allows. And it's a fantastic little rig!! Kits are from Wilerness Radio. Check out:

<http://www.fix.net/~jparkers/wilderness/sierra.htm>

for info

72,
geoff
--

Geoff Allsup, W10H gallsup@whoi.edu or w1oh@arrl.net
Research Engineer Upper Ocean Processes Group
Woods Hole Oceanographic Institution Woods Hole, MA, USA

Date: Mon, 14 May 2001 20:22:31
From: "laura halliday" <marsgal42@hotmail.com>
To: qrp-1@lehigh.edu
Subject: [98206] Re: Laura's kids and Chuck's challenge ...
Message-ID: <F8QZ5mZ8jxVSDbzLhnf00006b68@hotmail.com>
Mime-Version: 1.0
Content-Type: text/plain; format=flowed

Nick WA5BDU wrote:

>...But the advice seems sound. Chuck's 20 WPM string of dits
>isn't hard to break down into a fundamental and a series of
>odd harmonics of the frequency of the keying square wave
>(8.33 Hz)...

A useful writeup on what happens for non-square wave keying is a paper called The Shape of Bits To Come by James Miller G3RUH. Look on <<http://www.amsat.org>> for articles about amateur satellites - it's paper 108.

The full treatment is in all the usual references (try Lee and Messerschmit). In practice, however, almost everybody uses raised-cosine or Gaussian pulse shaping, both of which permit you to tune bandwidth and rise/fall times.

Laura Halliday VE7LDH "Que les nuages soient notre
Grid: CN89mg pied a terre..."
ICBM: 49 15.042 N 122 59.053 W - Hospital/Shafte

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Date: Mon, 14 May 2001 15:36:24 -0600
From: "Bruce Kizerian" <kizerian@ced.utah.edu>
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [98207] (WOT) Doug Adams and Doug Hendricks
Message-ID: <05e901c0dcdbd\$ed619960\$316b6e80@ced.utah.edu>

Douglas "Hitchhikers Guide to the Galaxy" Adams died last week, aged 49.

He taught me that it is okay to be a bit out of sync with the rest of the world, and...oh, yeh, he taught me how to fly...

DON'T PANIC!!!

Getting back on topic: Thanks to the other Doug, Doug Hendricks, et al, for the great torroid kit. NORCAL has got to be one of the few places these days where you get more than your money's worth.

Bruce kk7zz

Date: Mon, 14 May 2001 15:08:23 -0700 (PDT)
From: "Robert P. Okas" <vintage@best.com>
To: qrp-1@lehigh.edu
Subject: [98208] Is Mouser online ordering secure?
Message-ID: <Pine.BSF.4.21.0105141500430.17012-100000@shell14.ba.best.com>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Hi gang,

I just placed an online order with Mouser, and I hope I don't regret it. I called their 800 number after my web browser didn't flash up the usual warning that I was about to conduct a secure transaction. I was assured that the online ordering was secure by the operator, and she couldn't take my order because her system was down. So, what have others experienced with this outfit?

73,
Bob - W3CD

Date: Mon, 14 May 2001 16:15:18 -0600
From: "al dawkins" <alk0frp@home.com>
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [98209] FS Bencher Hand Key
Message-ID: <000901c0dcc3\$5c4a98e0\$0400a8c0@home>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

I won a Bencher RJ-1, Chrome key black base. New never out of the plastic bag.
AES has it for \$95.99. I use a hand key to test key the transmitters and maybe a straight key night or two. I have an old \$.79 key I bought 35 years ago. It will just lay around. some one put it to good use.
Make me an offer before it goes to E bay.
Al K0FRP

Date: Mon, 14 May 2001 17:21:08 -0500
From: DONALD DORN <DDORN@CWIS.NET>
To: vintage@best.com
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [98210] Re: Is Mouser online ordering secure?
Message-ID: <3B005A54.1CB16E6C@CWIS.NET>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

I have had nothing but good experiences with Mouser. I have ordered by mail, from their web site, by phone, and also by email. They are the fastest to deliver that I have found. They also will get stuff for you that is not in their catalog if they can find it.

73,
Don K5AAR

Date: Mon, 14 May 2001 15:22:26 -0700
From: Phil Wheeler <w7ox@earthlink.net>
To: vintage@best.com
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [98211] Re: Is Mouser online ordering secure?
Message-ID: <3B005AA2.8DB49C38@earthlink.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

"Robert P. Okas" wrote:

>
> Hi gang,
>
> I just placed an online order with Mouser, and I hope I don't regret
> it. I called their 800 number after my web browser didn't flash up the
> usual warning that I was about to conduct a secure transaction. I was
> assured that the online ordering was secure by the operator, and she
> couldn't take my order because her system was down. So, what have others
> experienced with this outfit?
>

I've had only good experiences with Mouser.

Phil W7OX

Date: Mon, 14 May 2001 18:17:06 -0400
From: Bruce Muscolino <w6toy@erols.com>
To: vintage@best.com
Cc: Low Power Amateur Radio Discussion <qrp-l@lehigh.edu>
Subject: [98212] Re: Is Mouser online ordering secure?
Message-ID: <3B005962.2406FFAE@erols.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Bob,

I've never had any trouble with Mouser orders. They are a very large company, I think it would do their reputation irreparable harm if they weren't secure!

Date: Mon, 14 May 2001 18:37:36 -0400
From: "Ed Tanton" <n4xy@att.net>
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: [98213] RE: Is Mouser online ordering secure?
Message-ID: <CKEGICNFDIMCEKEDCEHFMEPGHBAA.n4xy@att.net>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="us-ascii"
Content-Transfer-Encoding: 7bit

I just checked and could have ordered a 2N5109 (\$1.66/ea) under "56bit SSL Security"... the "SECURE LOCKED" symbol was present on my screen-as it should have been for a truly secure transaction. So the Mouser 'SECURITY' system must be back up-or didn't display correctly on your system at that time Bob.

73 Ed Tanton N4XY <n4xy@arrl.net>

Ed Tanton N4XY
189 Pioneer Trail
Marietta, GA 30068-3466

website: <http://www.n4xy.com>

LM: ARRL QCWA AMSAT & INDEXA;
SEDXC NCDXA GACW QRP-ARCI
OK-QRP QRP-L #758 K2 (FT) #00057

R-390: Motorola SN: 374;
R-390-A: Capehart SN: 2241
51S-1 WE SN: 4389
HRO-50; HRO-60; & HRO-500
SP600-VLF SP600-JX-17 SP-600-JX-21

End of QRP-L Digest 2189

